

Interactional Process Approach to Teaching Writing

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Despite significant developments in ELT/ESP/EST practices in second-language contexts the world over, writing at the tertiary level has remained confined to teaching certain technical aspects rather than emphasising its specific communicative goals and purposes. Teachers seldom follow a method that makes students aware of the way writers make decisions as they write.

We have been working on an approach that emphasises discursal or cognitive aspects of writing to help students understand (1) how to generate ideas, and (2) how to develop them in a written structure adapted to the needs of the reader and the goals of the writer.

Viewing writing as a process, we have developed an interactive process model, which links writer, reader, and text—the essentials of the communicative triangle—and provides a sense of discovery in learning to write, by integrating skills and tasks that contribute to self-learning, self-correcting, and self-editing.

The model, as diagrammed on the next page, emphasises performance at three stages: pre-writing, writing, and post-writing.

Pre-writing

As most writers spend a good amount of their time *planning* before they write, we ask students to be clear about the message they want to convey, i.e., the *content* of their composition. They should be aware of their *purpose* (what they expect to achieve through their writing) and their *audience* (their knowledge, background, language abilities, needs, expectations, etc.), since the choice of content, organisation, and language depends on these factors. Students are also instructed to consider the *constraints* (personal, material, system, time, etc.) that they are likely to face while writing and to have a clear understanding of what they expect their readers to do with the writing. While knowledge of “purpose” focuses on the writer, the awareness of “task” focuses on the reader.

Since academic (or professional) writing at the tertiary level is largely *a way of writing* rather than writing on this or that subject, students are also made aware of

three kinds of competencies that must be demonstrated in their composition: (1) subject competency, (2) organisational competency, and (3) linguistic competency. They must show that they can communicate their message (professional or subject knowledge) objectively, logically, and unambiguously, employing appropriate linguistic and organisational strategies. They are asked to collect data through library research, live interviews, and field trips. They must take notes, and critically evaluate the ideas of others to formulate and structure their knowledge about a specific topic.

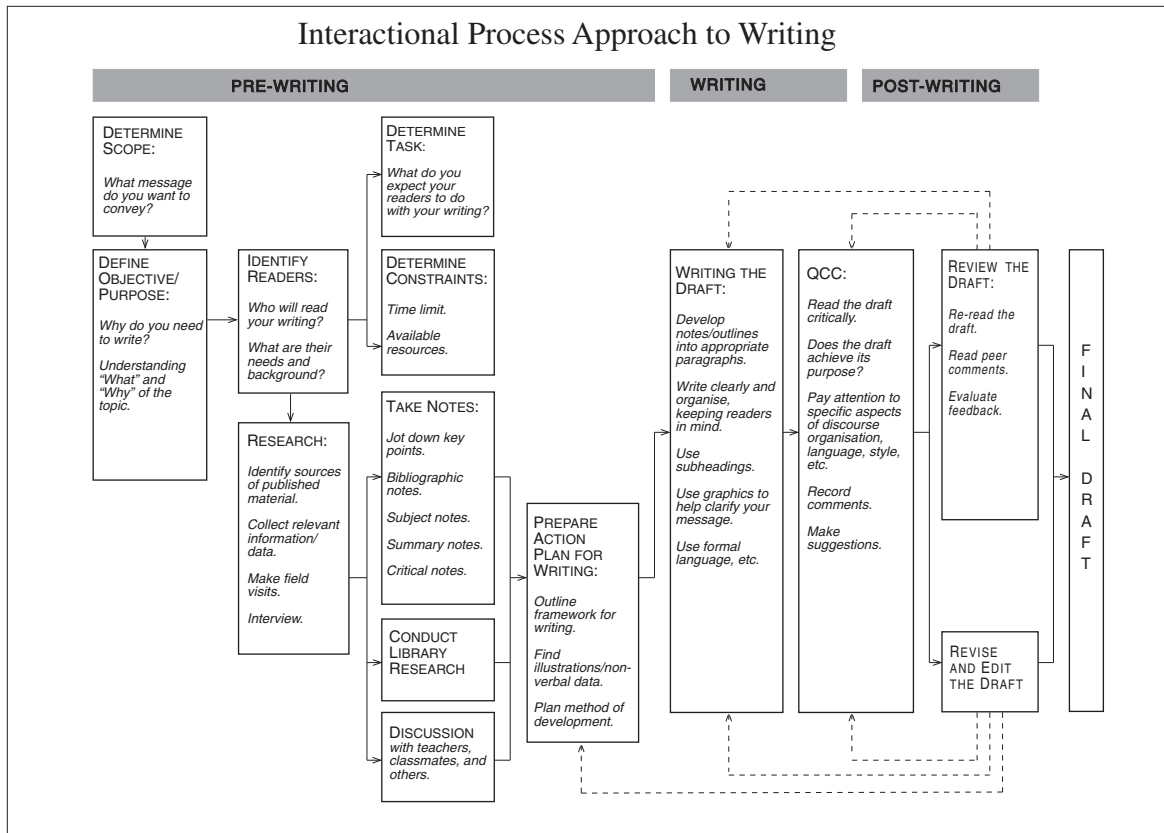
Planning relating to content, structure, emphasis, and procedure helps students to monitor the organization and development of their ideas. Preparing an action plan or a framework for writing (explaining, describing, stating, arguing, narrating, etc.), and considering the use of illustrations, nonverbal data, etc., prove effective in the right sequencing of ideas.

Writing

Since the purpose of writing is to convey concrete information, we encourage students to make decisions regarding the specific content to be included in their text. The audience analysis that they have done in the pre-writing stage prepares them to decide on what they should or should not include to meet their readers' needs. They set out to give shape to the skeletal structure prepared before writing, considering (1) how content is given linguistic expression (through definition, description, explanation, classification, generalisation, comparison, contrast, and hypothesis, etc.), (2) how thought connectors are used, (3) how a formal discourse is organised, and (4) how sub-headings, diagrams, tables, and charts can be used in the final layout of the paper. They construct the text with a distinct beginning, middle, and end, keeping logic, clarity, brevity, and correctness in mind.

Questionnaire cum checklist. We try to build upon the exposure the students have had in their EST courses and sensitise them to the process and conventions of formal writing in a technical context. To enable students to be aware of both

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form and format, we devised an instrument consisting of a set of questions related to various aspects of writing that we have called a Questionnaire-cum-Checklist (QCC). It makes our process approach essentially learner-centred and interactive. With the tasks set by the QCC we motivate students to re-think and revise their work with confidence. We introduce the QCC as an essential tool for the writing process to help them become their own editor, developing a sense of effective discourse (see page 20).

We designed the QCC as a tool to promote peer review with critical awareness; the 23 items of the questionnaire constitute a group of related concerns that foster an awareness of writing mechanics as well as providing a basis for peer interaction and correction. Specific questions require students to (1) identify main ideas, (2) use appropriate headings and subheadings, (3) outline, (4) use nonverbal information (graphs and charts), (5) organise bibliographical information, and (6) identify grammatical errors. These activities become part of the feedback, practice, and evaluation process.

If a student is able to recognise that a sentence or paragraph in a draft needs changing or improvement, s/he should be able to zero in on the locus of the problem and suggest an acceptable revision; s/he should be able to focus on larger text structures (inter-sentence cohesion, coherence of argument, consistency in formality and technicality of the language, rhetorical conventions, style and layout, etc.). S/he should point out where misunderstandings may arise or what can be done to convey the exact meaning in a text.

Items in the QCC help internalise the process of writing and editing. In the process we try to make students analytical, critical, and creative just as we give them an opportunity to respond to their classmates' reports.

The interactive input obtained by exchanging the QCC and draft essay among the students makes them aware of writing style. To encourage a good critical evaluation, the peer critic must judge the written piece as a whole, giving a holistic rating (item 23).

Through the QCC we try to change the learning environment. Critical read-

Questionnaire-cum-Checklist (QCC)

Read the essay to answer the following:

1. What was the writer's main contention/ point/idea?

2. a. What was the *main* idea in the first paragraph?

b. Was the main idea appropriately placed in the paragraph? yes / no / somewhat
3. Make an outline of the writer's central ideas in the essay: _____
a. Do you think the writer's reasoning was sound and logically presented? yes / no / somewhat
b. Was the ordering of information within (1) various paragraphs, and (2) within the whole essay appropriate? yes / no / somewhat
4. What do you think was the writer's purpose (i.e., what effect was the writer trying to have on you)?
• to inform you about _____
• to amuse you about _____
• to convince you to change your thinking about _____
• to make you feel that _____
• to explain _____
5. Was the main idea/idea development in terms of the topic clear to you? yes / no / somewhat
6. Do you think the essay was written with advance preparation/planning? yes / no / somewhat
7. Do you think the writer communicated ideas fairly well, but left out some questions/points/ideas? yes / no / somewhat
8. Do you think some of the writer's points didn't fit with the overall topic/main idea? yes / no / somewhat
If you answer "yes," underline/box the sentences (in the writer's draft) that do not logically fit. Or suggest those points in brief.
9. Did you find some ideas disjointed and/or hard to follow? yes / no / somewhat
10. Did the essay have the effect on you that you think the writer intended? yes / no / somewhat, but needs work
If you answer "yes," please note on the draft places you think the writer has effectively achieved his/her purpose.
If you answer "no," or "needs work," please offer suggestions (on a separate sheet) about how the writer could strengthen the piece.
11. Did the author use headings/sub-headings in the idea development? yes / no
If you answer "yes," were the headings correctly placed/worded? yes / no
If you answer "no," mark the places in the draft where headings/subheadings could be used. Also suggest such headings.
12. Were there enough details and examples to support the main ideas? yes / no
If "no," could you suggest any supporting points/ideas the writer might use?
13. Was the arrangement of ideas (introduction, conclusion, title, headings/subheadings, graphs/charts, etc.) appealing? yes / no / somewhat, but needs work

If you answer "no / needs work," make your suggestions.

14. Were there any irrelevant points/ideas that could be deleted to make the essay better? yes / no
If "yes" please indicate them on the draft.
15. Was the meaning of each sentence clear and correct? yes / no
If "no," please mark the "incorrect / not clear" sentences on the draft.
16. Was there any use of literary/flowery language? yes / no
If "yes," identify such expressions on the draft.
17. Was the style of presentation appropriate and appealing? yes / no / somewhat, but needs work
If your answer is "no / needs work," please make your suggestions.
18. Were there any grammatical distractions/problems? yes / no
If "yes," please mark them on the draft.
19. Were there any spelling or punctuation errors? yes / no
If "yes," please mark them on the draft.
20. Were there any sentence fragments and informal expressions? yes / no
If "yes," please mark them on the draft.
21. Did the author use references appropriately? yes / no / not needed
If "no," please suggest the correct form of bibliographical arrangement.
22. Specific-Problem-Areas Checklist:

(Please put an "X" in the appropriate column.)

These are the areas where your paper is

	WEAK	AVERAGE	STRONG
a. Use of examples to support your opinion:			
b. Use of cohesive devices (the ideas are related):			
c. Use of formal/academic expressions:			
d. Use of transition words			
i. within paragraphs:			
ii. between paragraphs:			
e. Organisation (there is a logical order of ideas):			
f. Use of tables, charts, diagrams:			
g. Introductory paragraph:			
h. Concluding paragraph:			
i. Bibliographical arrangement:			
j. Word choice/idioms/distractions/problems:			
k. Grammar distractions/problems:			

23. Your rating of the essay:
excellent / very good / good / fair

Your Name: _____

Adm. No.: _____

ing of the draft with attention to specific aspects of discourse organisation, language, and style becomes a motivating experience. Students become aware of their own performance as they organise their comments about the writing of others. Because the peers know the subject matter well (or at least as well as the writer-students in the audience know it) they are able to evaluate their fellow writer's handling of the factual content and logical development. Moreover, the QCC stimulates them to action (which is particularly important as students are often not as motivated in learning to write as a teacher would wish them to be).

Post-writing

The interactional process approach is essentially *recursive* in that reviewing, evaluating, revising, and editing sends them back to the previous stages of writing in response to peer observations. The author-students critically re-examine their first draft along with the QCC and consider peer comments while writing the final draft. In some cases student-writers may have to reconsider their pre-writing decisions regarding scope, purpose, audience, and framework, and revise the draft accordingly. All students have the freedom to accept or reject a suggestion or comment on its merits or relevance; they reformulate ideas and structure, correct grammatical, lexical, syntactical, and organisational lapses, incorporate new ideas, or make changes wherever necessary in order to improve the overall writing. They reassure themselves that the final draft is better written and achieves its objective for the intended audience.

Classroom procedure

The interactive process as enunciated is based on the communicative principle of writing, focusing on interactional feedback. The process of reading → analysing → writing → feedback → re-writing within the broad framework of the three-stage planning, writing, and re-writing process enriches students' subject and language experience in addition to making them understand the essentials of English rhetoric. The QCC helps them to

curb their tendency to be formless and disorganised in structuring an essay and to appreciate constructive criticism and suggestions that ultimately lead to self-correction and re-writing.

As implemented at the Indian School of Mines, the process entails assigning a discipline-specific topic to (undergraduate) students of Mining Engineering, Petroleum Engineering, Mining Machinery, and Mineral Engineering, who have varying levels of English-language proficiency, different mother tongues, and varying attitudes toward learning English.¹

After completing the draft essay on the assigned topic within three/four weeks, each student submits it to the teacher for marking. (The marks awarded at each stage are not revealed to the students, nor are any comments made by the teacher regarding the draft.) After all the papers have been evaluated, the teacher distributes the drafts to the students along with the QCC. No one in a group will get his or her own paper. Within 10 days, each student hands in both the draft essay and the feedback sheet along with additional observations, if any, for the teacher's evaluation and recording of marks. In the third stage of the process, the writer of the first draft gets his/her own paper back along with a fellow student's feedback, and then writes another draft. After about two/three weeks, each student submits the final draft along with the first draft and the QCC for the teacher's evaluation and record.²

Students' performance: An analysis

Let's now examine our students' performance in terms of their comments on the draft essay as recorded in the QCC and the resultant positive changes in the final draft. The interactive feedback has generated a mass of data, a small portion of which we would like to share as part of on-line research.

1. See appendix for the essay questions assigned to the four groups of students.

2. The records (draft essay, QCC responses, and revised essay) of 228 students (from 1989–90 and 1990–91 sessions) are all available from the Head of the Department of Humanities and Social Sciences, Indian School of Mines, Dhanbad - 826004, India.

APPENDIX

Mining Engineering

a. *The World Health Organization and our government have been trying to promote better health in rural areas, but in industrial cities and towns, mining health hazards are growing alarmingly. What possible measures can be adopted to check this?*

b. *Discuss the pros and cons of indiscriminate coal mining, upsetting the environmental balance in India (reduce the question to an appropriate topic for the essay).*

Petroleum Engineering

Oil and natural gas will run out sometime in the next century. What alternative sources of energy are there and what are the advantages and disadvantages of each? Discuss the alternative sources with reference to India (reduce the question to an appropriate topic for the essay).

Mining Machinery

Do you think mechanisation of mines in India will improve skills and quality of production? Also, discuss the prospects of complete mechanisation of mines (reduce the question to an appropriate topic for the essay).

Mineral Engineering

In spite of huge mineral resources in our country we very often import some of the items. Make a case to stop this practice in the interest of the country's mineral industries and the involved manpower (reduce the question to an appropriate topic for the essay).

When we compared peer response to the first draft with the final paper, we had the impression that almost every student had done some degree of planning and preparation before writing the final draft, whereas a number had failed to do any preliminary planning before they attempted the first draft. Even as we could locate a few scripts that were copied from each other, either fully or partially (perhaps to meet the deadline?), we also found several papers which were *totally* rewritten with changes in idea structure and development, exploiting additional/new sources.

Arrangement of ideas. The QCC provides for individual response to arrangement of ideas, use of supporting details, use of cohesive devices, transition words, and appropriateness/appeal of the overall presentation.

For the first draft the reader-students in all four engineering groups found “disjointed ideas and insufficient examples” in more than 50% of the papers. More than 60% of the students were found to have used irrelevant information in their compositions, yet about 74% were found to have made their presentation appropriate and appealing.

As we compared the students’ first and revised drafts we noticed quite a good deal of improvement at various levels, including improvement in the arrangement of ideas. Not only were the difficult and disjointed ideas detected but also the irrelevant ideas were either dropped or rewritten or replaced in the revised composition.

Highlighting techniques. Since the students are asked to write with a sense of readership, the QCC examines their use of headings/subheadings to highlight idea development and presentation techniques (introduction, conclusion, title, heading/sub-heading, graphs, charts, etc.).

We noticed improvement in the weak and average performers following feedback response: these students divided their composition into more paragraphs, placing appropriate subheadings, adding tables and charts where necessary, and using graphic devices in their revised draft.

However, there were still some students who did not make the necessary

changes, despite having them pointed out (in one or two cases even subheadings already suggested by a peer), possibly because of carelessness or lack of interest or understanding of the task required of them.

Additionally, most of the students who were supposed to reduce the long question (assigned to them for doing the essay) to a suitable heading for their composition failed to do so, possibly because they thought they were answering a question rather than attempting an essay.

Using formal language. Technical students need to use formal expression with a sense of objectivity and seriousness both in style and thinking. Peer-comments led to positive improvement in the revised draft with the majority of the writers. We noticed a few cases where no improvement or change was made, possibly because the reader-student had not specifically located the flaw such as sentence fragments, etc., on the script, leading the writer-student to believe that there was nothing wrong with his/her expression.

Grammatical accuracy. As our data reveal, students had grammatical aberrations of all sorts: subject-verb concordance, tense pattern, use of linking words/transition signals, phrasal construction, choice of words, use of articles, adverbs, prepositions, modifiers, relative clauses, shifted construction (such as change from personal to impersonal style), change from indicative to imperative mood, change from active to passive voice, etc.

About 75% of the students were found wanting in use of appropriate punctuation marks and/or correct spellings. When we checked the drafts, we discovered the essays were grammatically unsound, with a variety of errors. It was such a problem that 54% of the peer critics recorded grammatical distraction as a specific problem area needing serious attention, though it was disappointing that most students failed or chose not to point out specific grammatical problems either on the draft or on the QCC (item 22). It was heartening, however, that whenever specific grammatical, spelling, or punctuation errors were pointed out, significant improvement was noted in the final draft.

Table 1: Post-Writing Improvement

Serial No.	Groups of Students	No. of Students in Each Group	Improvement number	Peer Review percentage
1.	Mining Engineering	124	111	89.51
2.	Petroleum Engineering	66	58	87.87
3.	Mining Machinery	27	22	81.48
4.	Mineral Engineering	11	8	72.72

Using references. As for using library sources (reporting, quoting, paraphrasing, or summarising ideas from books and journals, etc.) and acknowledging them in the draft, almost two-thirds of the students were judged to have *not* provided the bibliographic details properly.

Following peer review, however, the number of students who provided correct references swelled to a significantly high level in the revised submissions. Most of the students not only provided bibliographic information but also arranged it in an appropriate form.

Rating drafts. Students' personal judgment about each other's performance was rather critical. It appears that students' inability to write well does not hamper their ability to recognize when a draft is poorly written.

Positive results

Even if in a 16-week semester (with two hours per week for teaching written communication) there is time to write only one full-length essay with a reasonable amount of planning and interactive feedback, students can develop certain cognitive and analytical abilities that should help them in their future academic writing assignments.

A statistical analysis of our students' performance, in terms of their comments on the draft essays as recorded in the QCC and the resultant positive changes in the final draft, convinces us of the efficacy of our approach. More than 85% of the students showed a clear improvement on their first draft (Table 1).

Most of the students revised their first drafts, making changes in the layout and structure, incorporating their reader-critic's suggestions, including new points/non-verbal data, references, sub-topics, or excluding irrelevant sentences and even paragraphs. We also noticed positive changes in the introduction and conclusion of many a draft.

Conclusion


The interactive procedure to develop academic/EST writing skills in an SL context, as adopted, is innovative in that it does not consist of routines familiar to the students. After each semester, the teacher

can reflect on and analyse the apparent effects of his/her own teaching and apply the results of these reflections to future planning and action. In other words, teachers can effectively integrate classroom teaching with research.

The students can learn by examining their work and that of their peers. Since there is homogeneity of purpose, i.e., the "P" of ESP is shared by all, and the communicative function of "E" is the same in all cases, the individual differences among students can ultimately become a positive factor in the teaching-learning process.

Learning to achieve stylistic excellence and structural cohesion in writing is a long process. It is to the English teacher's credit to make students aware of this through appropriate exposure. The Interactive Process, though tried out in the context of tertiary level technical students, is applicable in the general context as well, for the approach can prepare students to gain ability to write for any audience and any purpose. What matters is giving them plenty of practice and opportunities for interaction.

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